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"Note on the relations of *Syncladia*, King (1849) to the proposed genus of *Septopora*, Prout (1858)." By F. B. Meek and A. H. Worthen.

The death of Mrs. E. H. Vaux was announced.

Feb. 8th.

The President, DR. RUSCHENBERGER, in the Chair.

The death of Caleb S. Hallowell was announced.

Notice was given of the publication of the third number of the Proceedings for 1869.

Feb. 15th.

DR. BRIDGES in the Chair.

Eight members present.

Feb. 22d.

The President, DR. RUSCHENBERGER, in the Chair.

Eighteen members present.

The following gentlemen were elected Members :

Chas. D. Reed, Jas. S. Martin and Theo. Harrison.

March 1st.

The President, DR. RUSCHENBERGER, in the Chair.

The following paper was presented for publication :

"Descriptions of new species and genera of Fossils from the Palæozoic Rocks of the Western States." By F. B. Meek and A. H. Worthen.

PROF. LEIDY directed attention to a specimen received from the Smithsonian Institution for examination, which he said was the upper two-thirds of the right humerus of one of the extinct giant sloths, and was obtained in Central America by Capt. J. M. Dow. It agrees so nearly in form, proportions and size with the corresponding portion of the arm-bone of the *Mylodon robustus* of Buenos Ayres, as described and figured by Prof. Owen, as to render it probable it may belong to the same species.

The specimen is unworn, black, not petrified, has no adherent rock matrix, and looks as if it had been obtained from alluvial mud. The interior of the shaft presents a long wide cavity, which might be viewed as the medullary cavity were it not that all the known extinct giant sloths have the limb bones solid. There would perhaps have been less hesitation in deciding as to the character of the cavity, were it not that comparatively recently a reverse condition was observed in a bone where it would not have been anticipated. A short time ago Mr. James Orton, of Rochester, N. Y., submitted for examination a collection of bones from the valley of Quito, Ecuador, S. A. The specimens were obtained at an altitude of 10,000 feet, and from Mr. Orton's account, were imbedded in a cliff of unstratified silt 400 feet in height. Among the bones, besides those of Horses, Lamas, etc., there was the femur apparently of a Mastodon, but solid or devoid of a medullary cavity.

[March,

If the hollow interior be the natural condition of the *Myiodon*-like humerus under inspection, it would not belong to *Myiodon robustus*. Independently of the cavity indicated, the bone is sufficiently different in size and form to indicate a different species from the *Myiodon Harlani* of North America. The humerus from Oregon, described by Perkins (Am. Jour. Sci. 1841, xlii, 136), and referred to the latter by Prof. Owen, is not only much larger, but it is of greater breadth in relation with its antero-posterior diameter. The fragment of a humerus from Big-Bone-Lick, Ky., represented in fig. 3, plate xiv of my "Memoir on the Extinct Sloth Tribe," is somewhat smaller than the corresponding part of the Oregon specimen, and is more compressed or wider in comparison with the antero-posterior diameter.

Prof. Leidy further observed that there appeared to be a point of some significance in the anatomy of the mandible of *Dromatherium silvestre* worthy of attention, though the appearance may turn out to be a deceptive one. Prof. Emmons had discovered three isolated rami of mandibles of this most ancient of American mammals in the triassic coal of North Carolina. Of the specimens, one is represented in fig. 66 of Emmons' American Geology, repeated in outline in fig. 650 of Dana's Geology. Another specimen Prof. Emmons presented to the Academy, and is contained in our museum. The point of interest to which reference is made is the apparent absence of a condyle. This process may have been lost, but in the two specimens seen by Prof. L.—that figured by Prof. Emmons, and that preserved in our museum—a separation of the process is not obvious.

March 8th.

DR. CARSON, Vice-President, in the Chair.

Twenty-five members present.

PROF. LEIDY made the following remarks:—The reptilian remains from the cretaceous formation near Fort Wallace, Kansas, presented to the Academy by Dr. T. H. Turner, and described by Prof. Cope under the name of *Elasmosaurus platyrus*, belong to an Enaliosaurian, as originally suggested by Prof. Cope. The anatomical characters of the different regions of the vertebral column, those of the shoulder and pelvic girdles, and of the preserved portions of the skull and teeth, are decidedly Plesiosaurian.

Prof. Cope has described the skeleton in a reversed position to the true one, and in that view has represented it in a restored condition in fig. 1, pl. ii. of his "Synopsis of the Extinct Batrachia and Reptilia," Pt. I, August, 1869, published in advance for the fourteenth volume of the Transactions of the American Philosophical Society. To explain the apparently anomalous and reversed arrangement of the articular processes (zygapophyses) of the vertebræ, he has supposed that those as ordinarily existing are substituted by the second set of articular processes (zygophene and zygantrum), as found in serpents and iguanians (Proc. Bost. Nat. Hist. Soc. xii, 265; Syn. Ext. Bat. and Rept. 42).

The finding of a portion of the jaws, as reported by Dr. Turner, in the vicinity of what Prof. Cope has supposed to be the cervical portion of the skeleton, and which he considers as confirmatory of the view he has taken of its position, without further consideration, is more than compensated in the opposite end of the column terminating in a coössified axis and atlas, as is the case also in the mature *Plesiosaurus*. The cup of the atlas still retains the hemispherical occipital condyle.

The Kansas saurian was wonderful for the length of its neck, far exceeding in this respect the *Plesiosaurus*. The vertebræ in the specimen form a nearly unbroken series to the seventy sixth inclusive. If we regard all as cervical until the transverse processes begin to spring in part from the spinal arch, it 1870.]